

Fig. 2

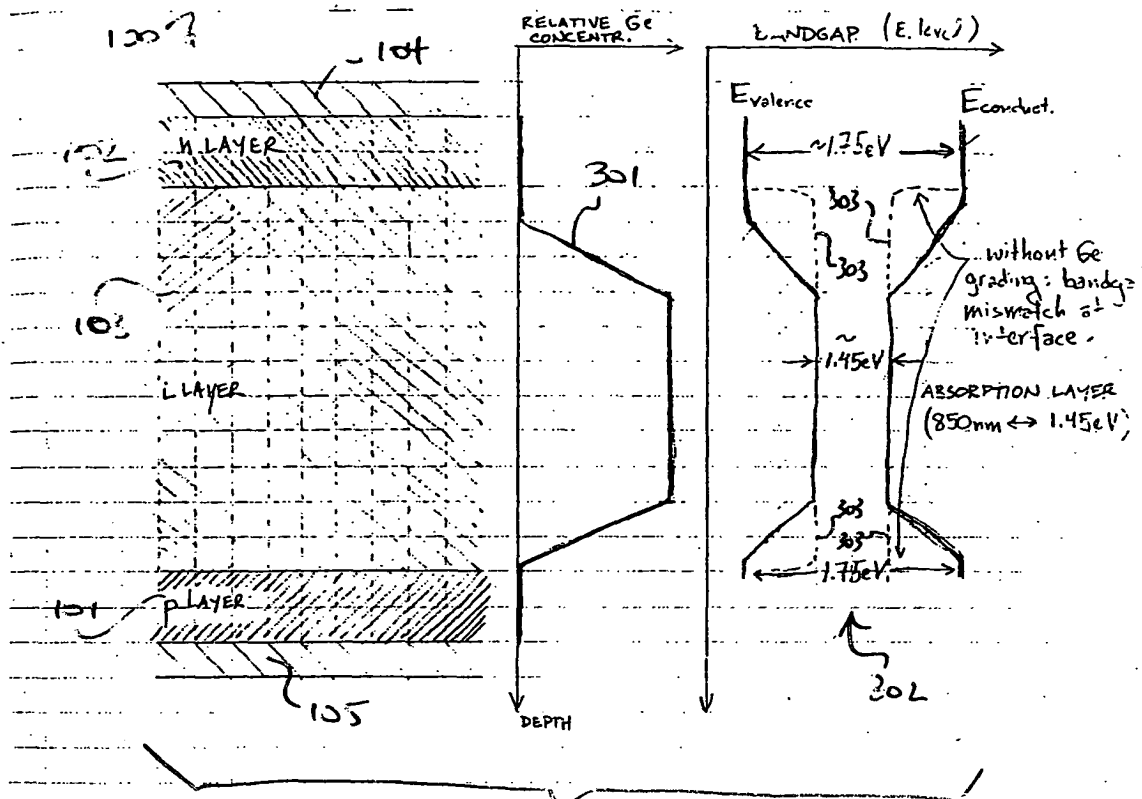


Fig. 3

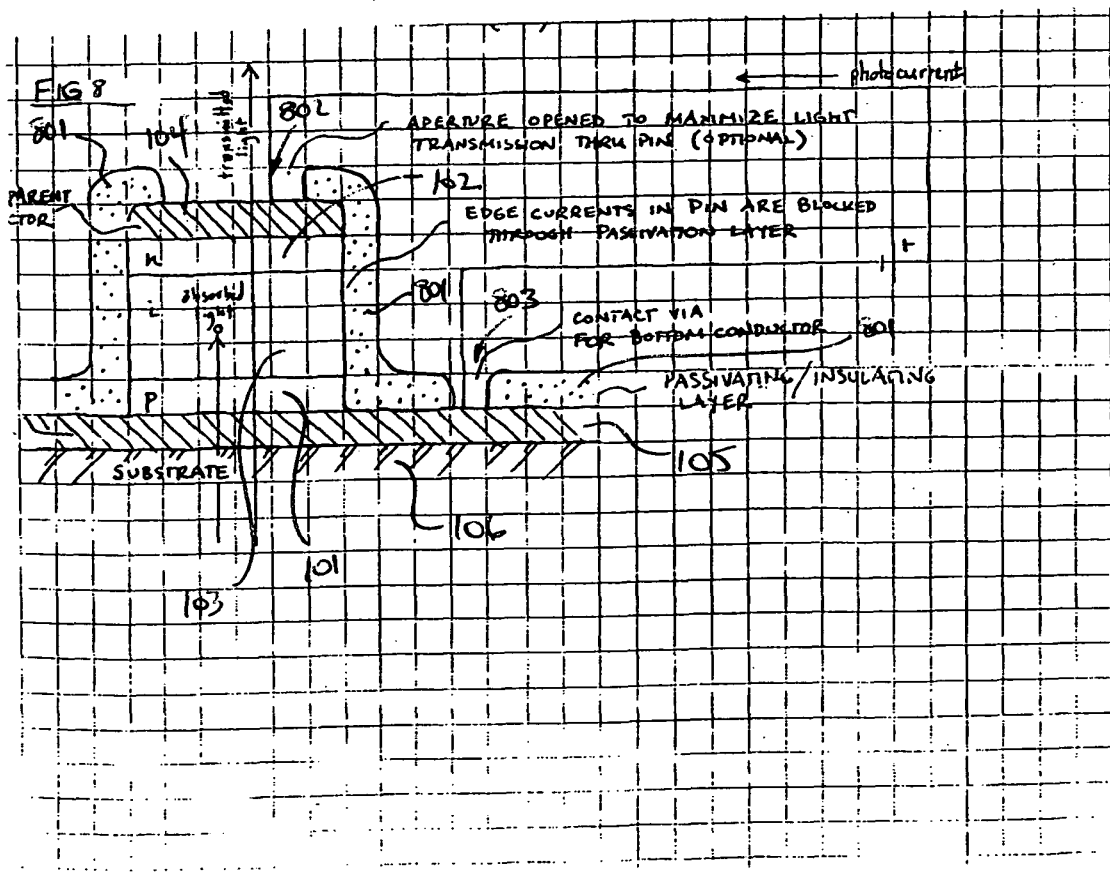
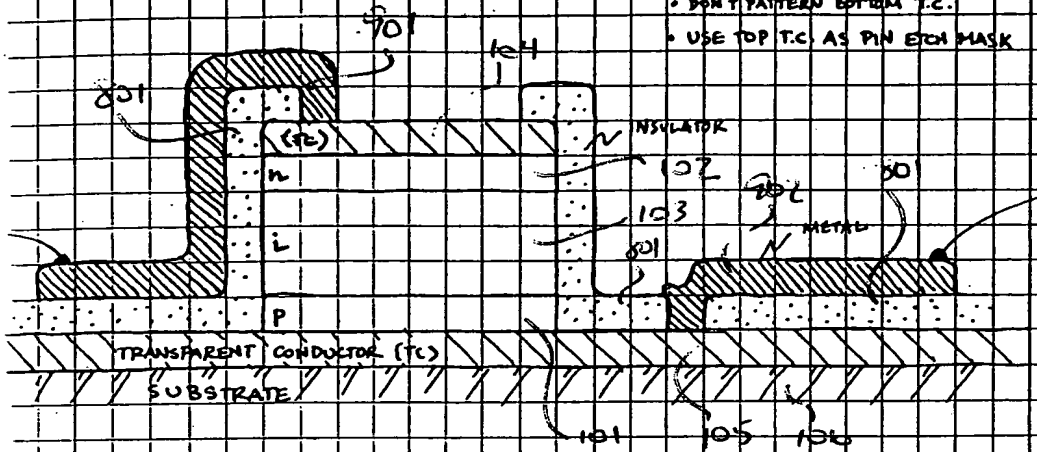


FIG 9



MOST SIMPLE STRUCTURE

• DON'T PATTERN BOTTOM T.C.

• USE TOP T.C. AS PIN ETCH MASK

FIG 10

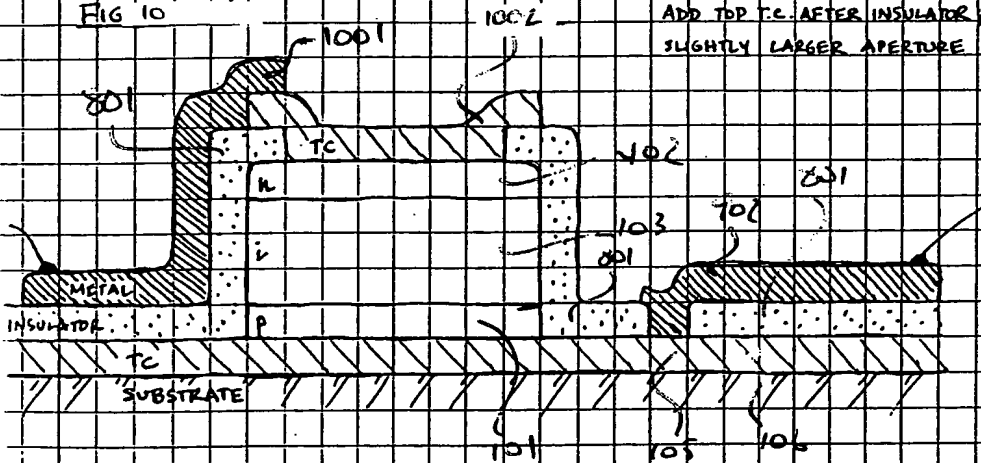
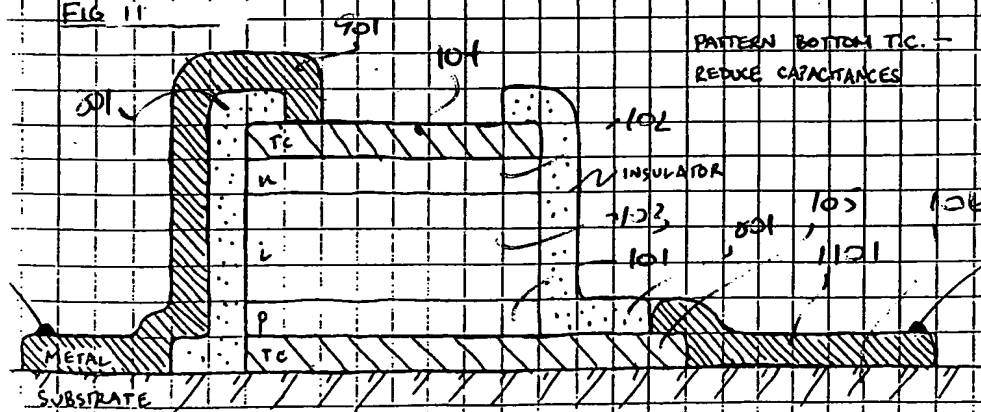
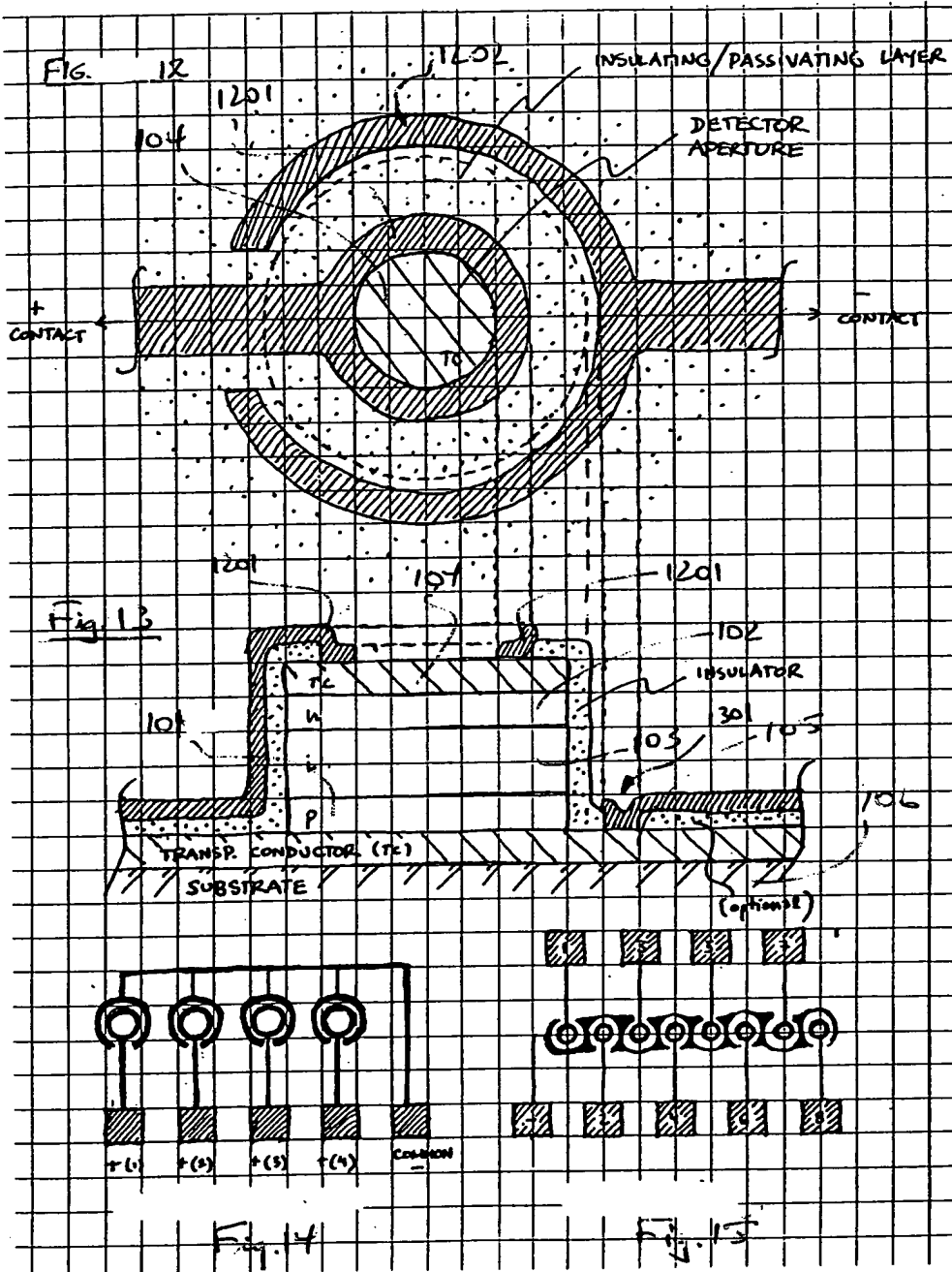
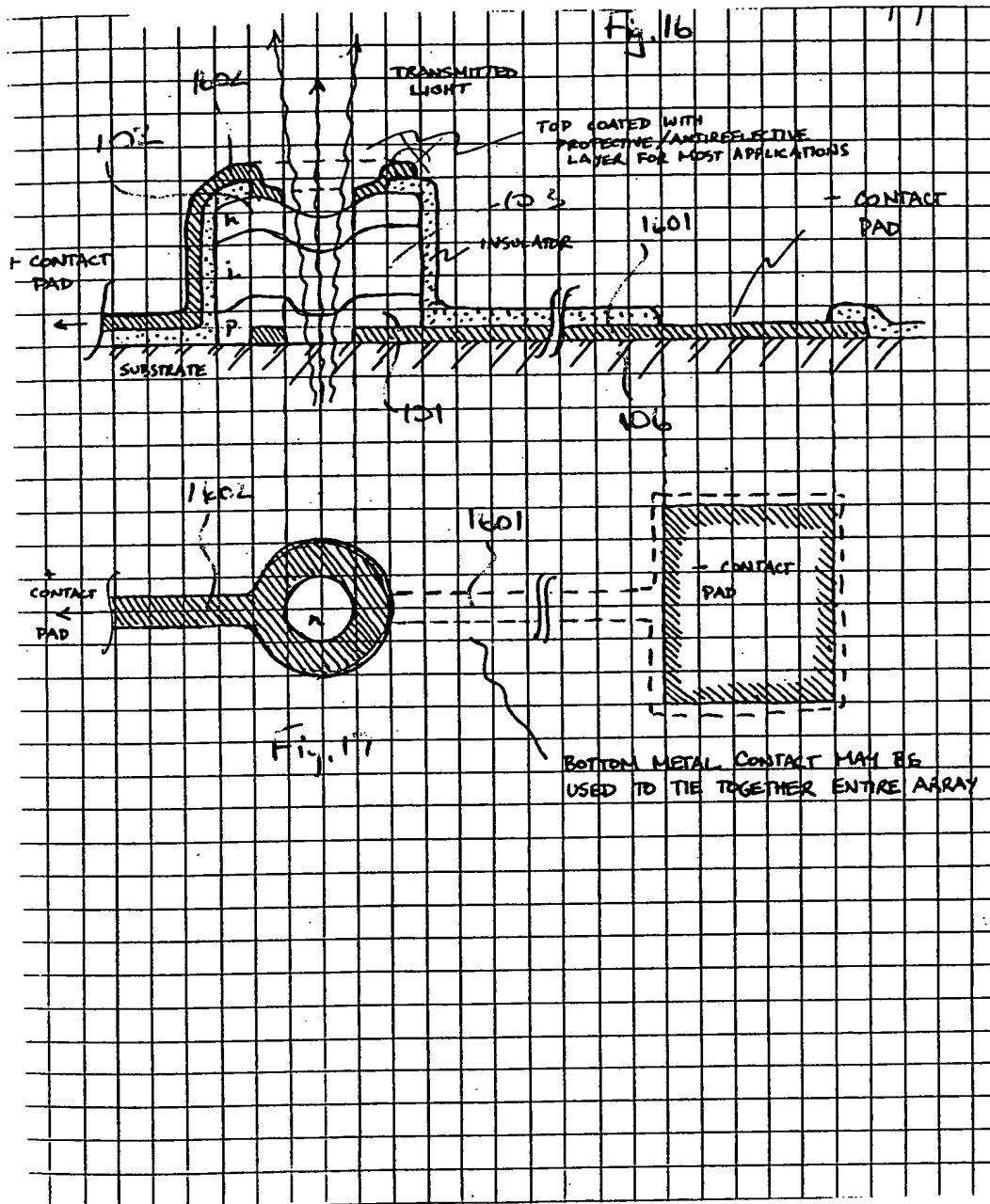
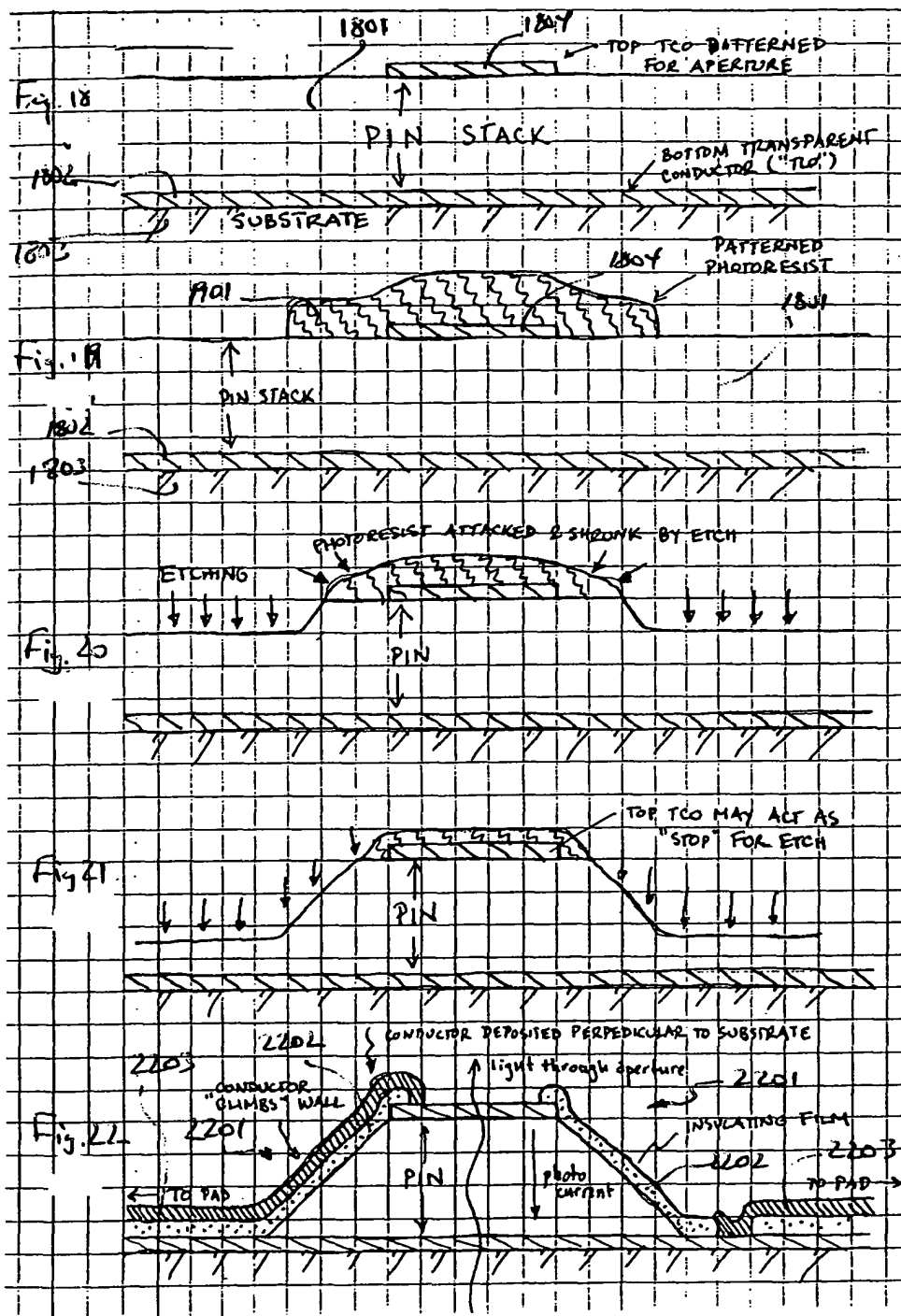
ADD TOP T.C. AFTER INSULATOR
SLIGHTLY LARGER APERTURE

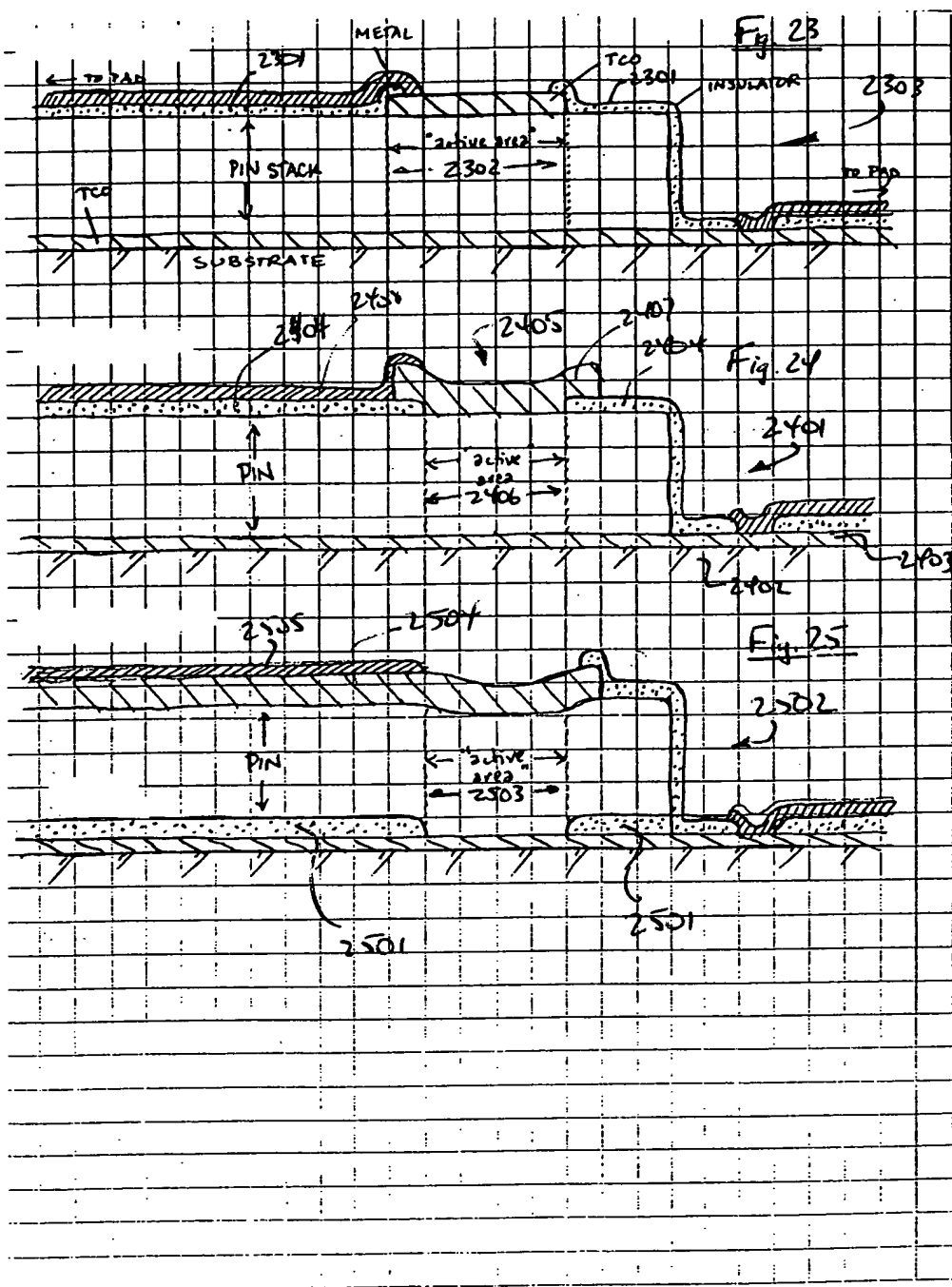
FIG 11

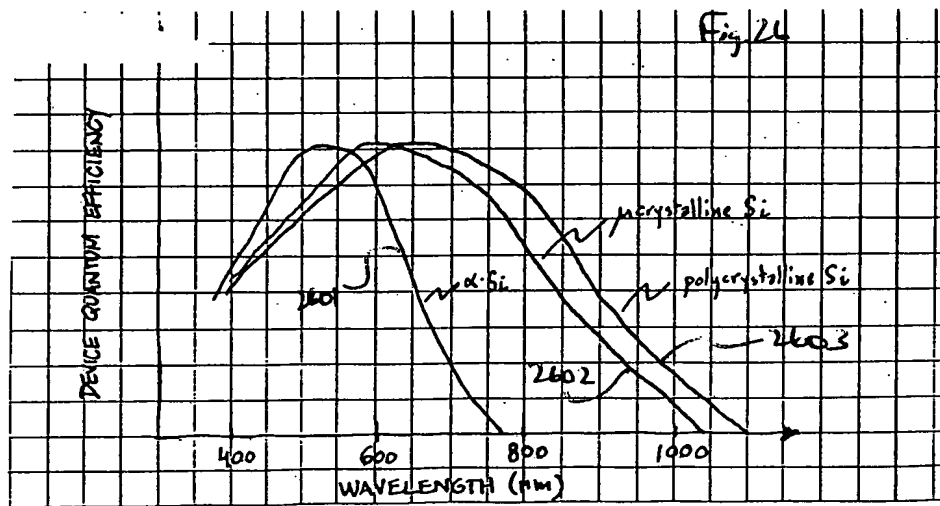
PATTERN BOTTOM T.C. -
REDUCE CAPACITANCES

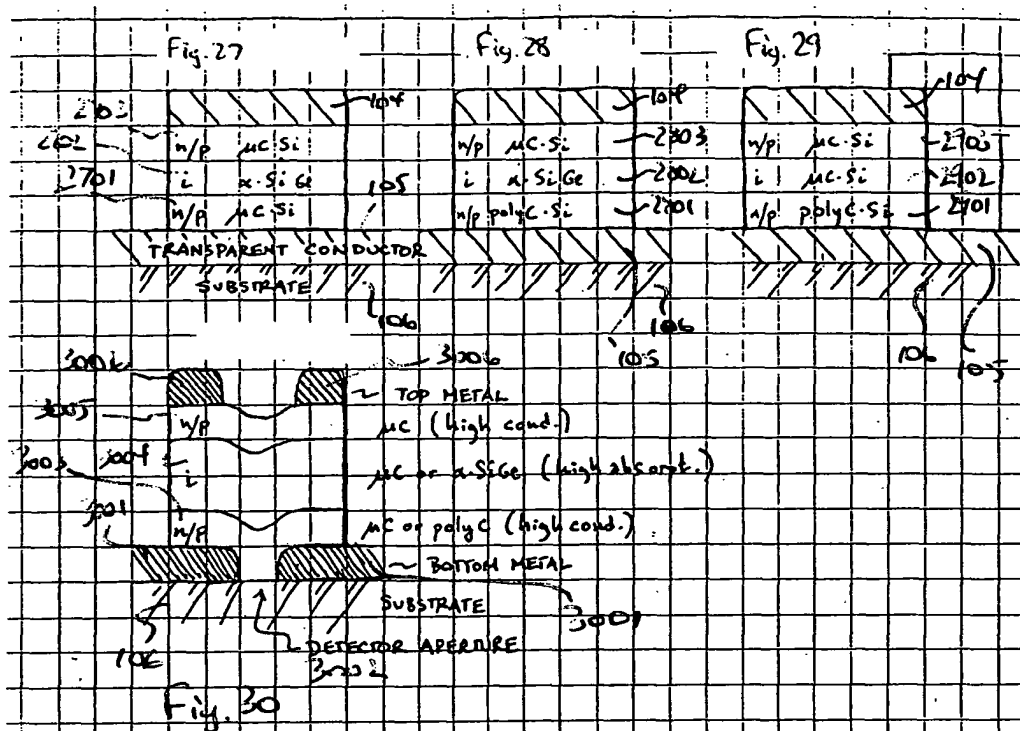


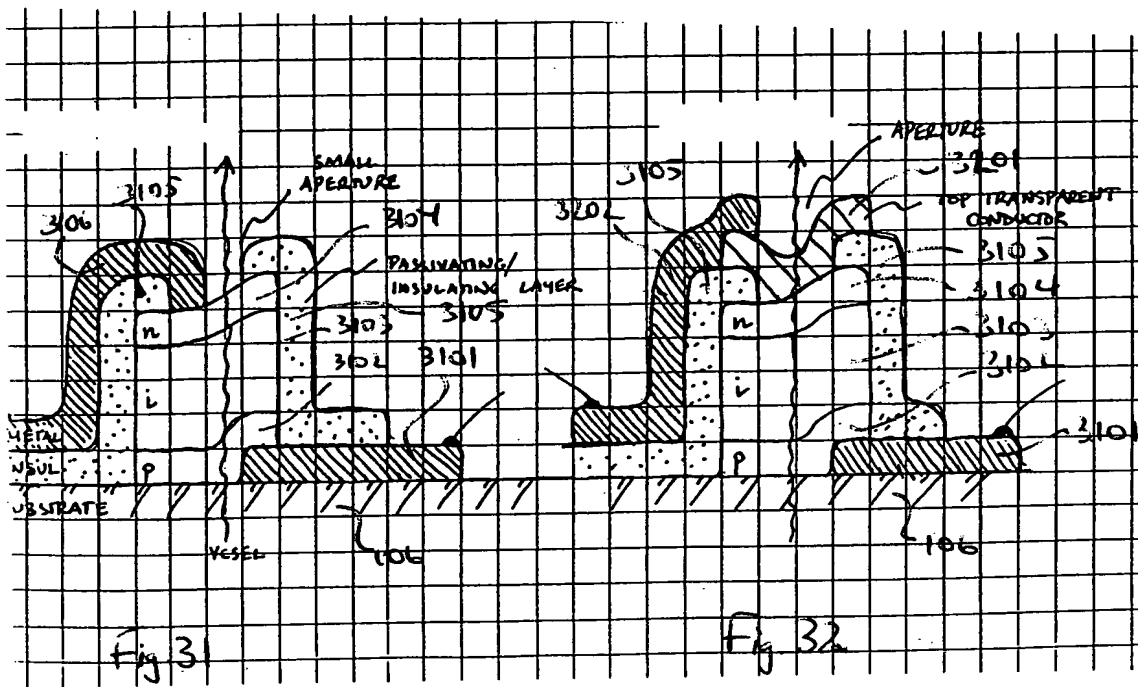


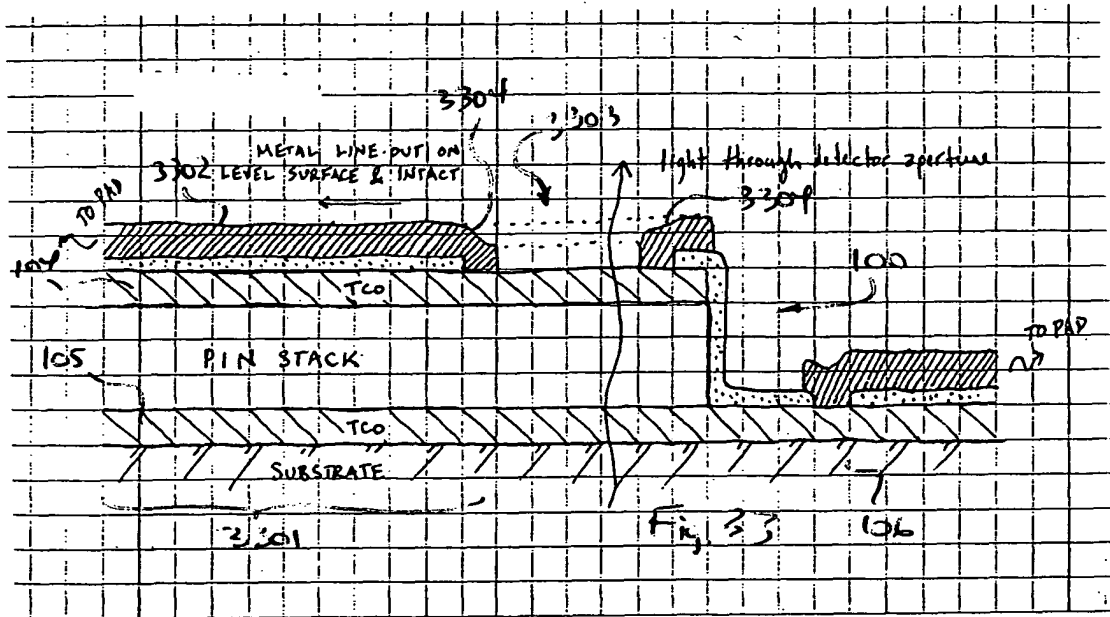


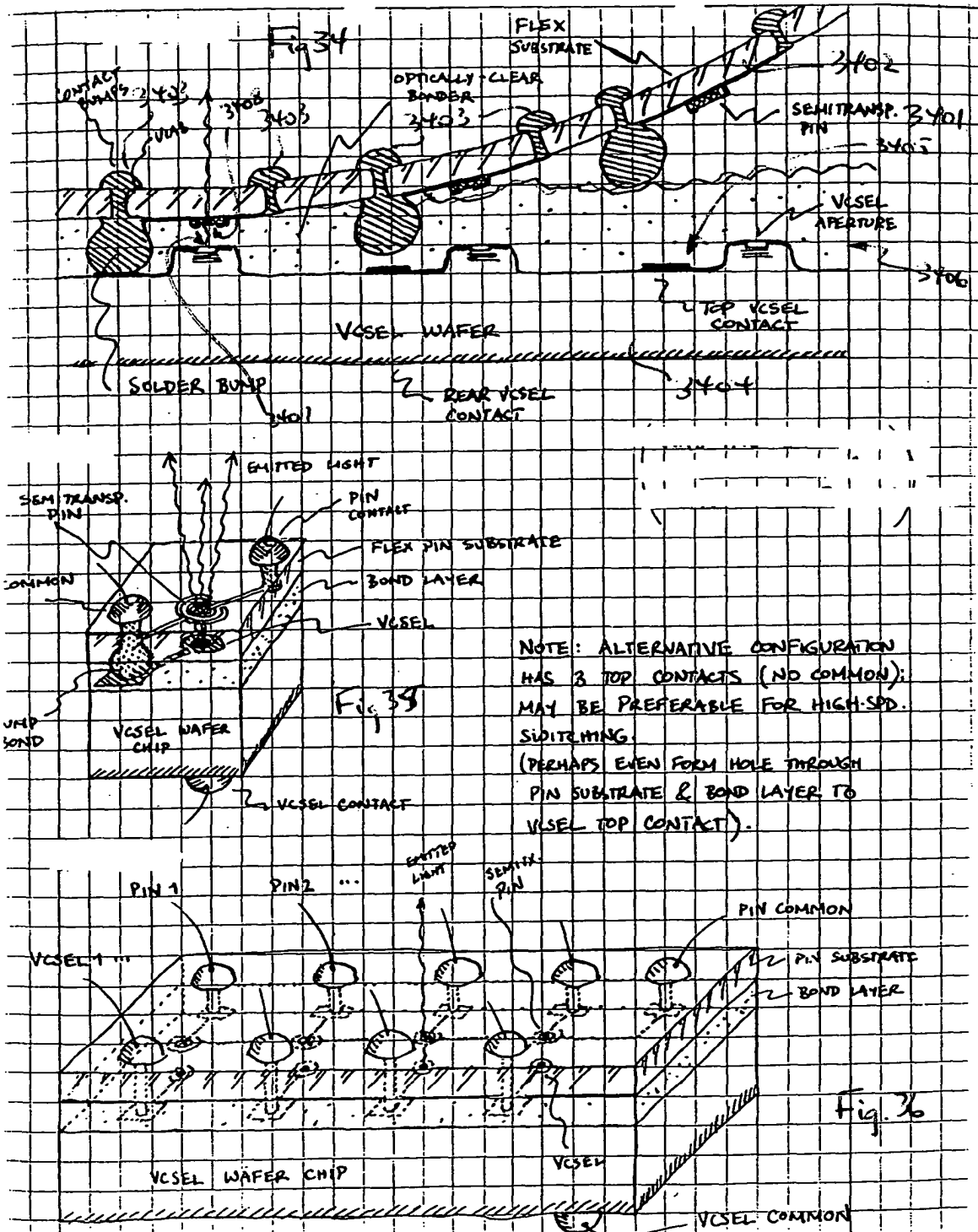












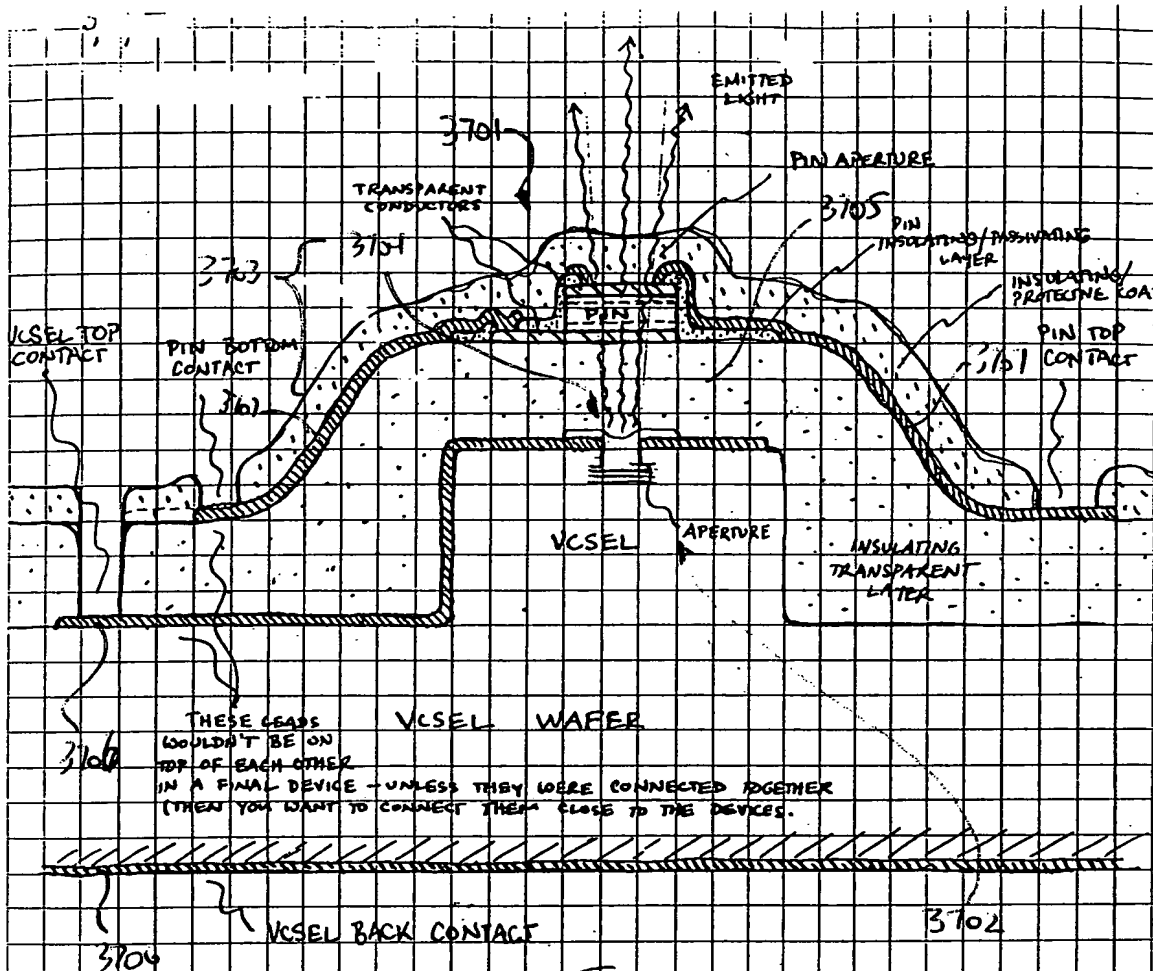
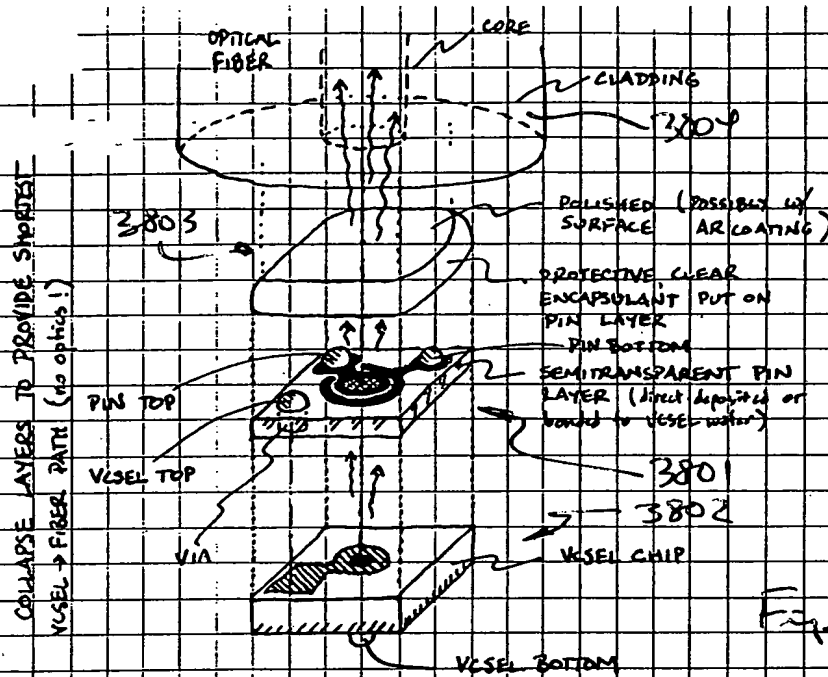


Fig. 37



.. SUCH A PACKAGE WOULD ALLOW LOW-COST, DIRECT COUPLING IN A FIBER CONNECTOR (VCSEL APERTURE $< 25 \mu\text{m}$ AND MULTIMODE FIBER CORE $\approx 50-62.5 \mu\text{m}$; VCSEL BEAM DIVERGENCE $\leq 20^\circ$, AND PIN LAYER IS THIN).

